

# Professional Master's Degree

## Clinical Nutrition Counseling in the Community Pharmacy



## Professional Master's Degree Clinical Nutrition Counseling in the Community Pharmacy

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/pharmacy/professional-master-degree/master-clinical-nutrition-counseling-community-pharmacy](http://www.techtute.com/us/pharmacy/professional-master-degree/master-clinical-nutrition-counseling-community-pharmacy)

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# 01

# Introduction

This program is oriented to update the pharmacist so that they can incorporate the advances in clinical nutrition in their daily practice. Essential knowledge for any professional who wants to specialize and stand out in a sector with high labor competition.

With this qualification, the pharmacist will learn to evaluate and calculate nutritional requirements in health and disease situations at any stage of the life cycle, as well as to review the new dietary guidelines, nutritional objectives and recommended nutrient intake for each person.





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*Keeping up to date in Clinical Nutrition Counseling in the Community Pharmacy is key to providing better care to our patients”*

Clinical nutrition deals with the care of people suffering from diseases in which an adequate diet is part of their treatment. For this reason, pharmacists must be aware of the latest developments in nutrition in order to improve people's state of health and know how to recommend the products best suited to the needs of each consumer.

This Professional Master's Degree offers the student the possibility of deepening and updating knowledge using the latest educational technology. This qualification offers a global vision of Clinical and Sports Nutrition while focusing on the most important and innovative aspects.

The qualification in Clinical Nutrition Counseling in the Community Pharmacy is an essential response from professionals to the healthcare and preventive needs of the population in terms of nutrition and health.

This Professional Master's Degree allows specialization in the field of Clinical Nutrition in the Community Pharmacy in areas of special interest such as:

- ◆ Nutrigenetics and Nutrigenomics
- ◆ Nutrition and obesity
- ◆ Sports nutrition
- ◆ Nutrition in chronic diseases
- ◆ Hospital dietetics
- ◆ Food allergies

With this program, students will have the opportunity to study an educational program that brings together the most advanced and in-depth knowledge in the field, where a group of professors of high scientific rigor and extensive international experience offers the most complete and up-to-date information on the latest advances and techniques in Clinical Nutrition Counseling in the Community Pharmacy.

This **Professional Master's Degree in Clinical Nutrition Counseling in the Community Pharmacy** contains the most complete and up-to-date scientific program on the market.

The most important features include:

- ◆ More than 100 clinical cases presented by experts in nutrition
- ◆ The graphic, schematic and practical contents of the course are designed to provide all the essential information required for professional practice
- ◆ It contains exercises where the self-assessment process can be carried out to improve learning
- ◆ Algorithm-based interactive learning system for decision-making for patients with feeding problems
- ◆ Clinical practice guidelines on the different pathologies related to nutrition
- ◆ All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Availability of content from any fixed or portable device with internet connection



*Update your knowledge through the Professional Master's Degree in Clinical Nutrition Counseling in the Community Pharmacy”*

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*This Professional Master's Degree may be the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge in Clinical Nutrition Counseling in the Community Pharmacy, you will obtain a Professional Master's Degree from TECH Global University"*

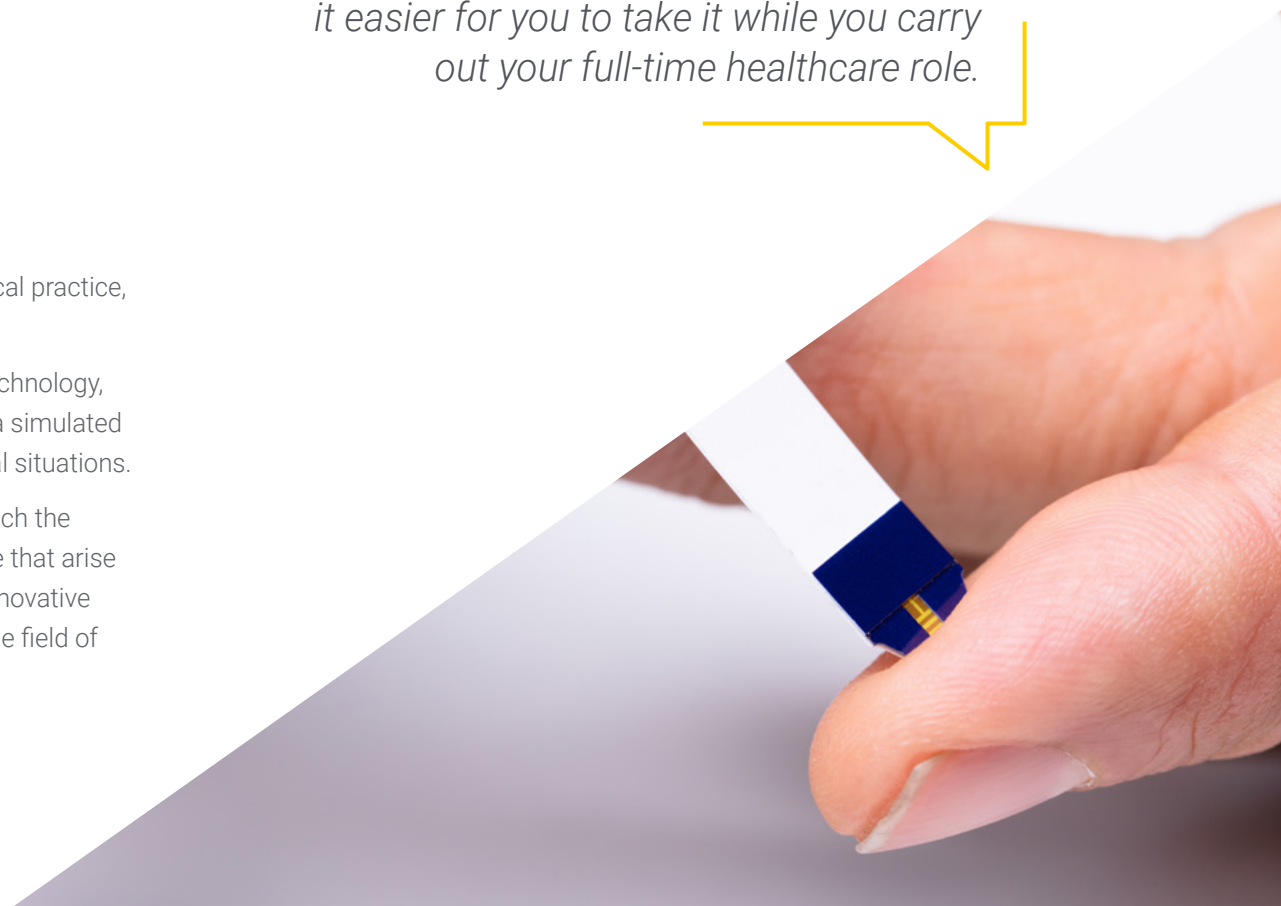
*Incorporate the latest developments in clinical nutrition into your daily practice and improve your patient care.*

*You will be able to complete the Professional Master's Degree 100% online, adapting it to your needs and making it easier for you to take it while you carry out your full-time healthcare role.*

Its teaching staff includes renowned specialists in pharmacy based on clinical practice, who bring the experience of their work to this program.

Thanks to their multimedia content developed with the latest educational technology, they will allow the pharmacist to learn in a contextual and situated way, i.e. a simulated environment that will provide immersive learning programmed to train in real situations.

This program is designed around Problem-Based Learning, by means of which the pharmacist must try to solve the different situations of professional practice that arise during the course. For this purpose, the pharmacist will be assisted by an innovative interactive video system created by renowned and experienced experts in the field of nutrition with extensive teaching experience.



# 02 Objectives

This Professional Master's Degree is oriented towards effectively updating the pharmacist's knowledge of Clinical Nutrition, in order to provide quality care based on the latest scientific evidence that guarantees patient safety.







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*This refresher program will generate a sense of security when practising medicine, which will help you grow both personally and professionally”*



## General Objectives

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- ◆ Update the pharmacist's knowledge on new trends in human nutrition both in health and pathological situations through evidence-based pharmacy
- ◆ Promote work strategies based on the practical knowledge of the new trends in nutrition and its application to child and adult pathologies, where nutrition plays a fundamental role in treatment
- ◆ Encourage the acquisition of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online simulation workshops and/or specific training
- ◆ Encourage professional stimulation through continuous education and research



*A path to achieve specialization and professional growth that will propel you towards a greater level of competitiveness in the employment market"*





## Specific Objectives

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### Module 1. New Developments in Food

- ◆ Review the new dietary guidelines, nutritional objectives, and recommended dietary allowances (RDA)
- ◆ Review the chemical composition of foods, their physicochemical properties, their nutritional value, their bioavailability, their organoleptic properties, and the changes they undergo as a result of technological and culinary processes
- ◆ Get up to date on the composition and utilities of new foods

### Module 2. Current Trends in Nutrition

- ◆ Update knowledge in nutrigenetics and nutrigenomics
- ◆ Incorporate the possibilities of phytotherapy as an adjuvant treatment in clinical practice
- ◆ Identify and classify foods, food products, and food ingredients
- ◆ Review basic aspects of food microbiology, parasitology, and toxicology related to food safety
- ◆ Study the DASH diet as a treatment for cardiovascular disease

### Module 3. Assessment of Nutritional Status and Diet Practical Application

- ◆ Assess and calculate nutritional requirements in health and disease at any stage of the life cycle
- ◆ Predict patients' nutritional risk
- ◆ Early detection and assessment of quantitative and qualitative deviations from the nutritional balance due to excess or deficiency
- ◆ Assess and maintain adequate hygiene and food safety practices, applying current legislation
- ◆ Acquire teamwork skills as a unit in which professionals and other personnel related to the diagnostic evaluation and treatment of dietetics and nutrition are structured in a uni or multidisciplinary and interdisciplinary way

### Module 4. Nutritional Consultation

- ◆ Analyze the different methods for assessing nutritional status
- ◆ Manage food databases and composition tables
- ◆ Acquire skills in reading and understanding new food labeling methods
- ◆ Manage the different types of nutritional surveys to assess food intake
- ◆ Gain up-to-date knowledge on the most common food allergies and intolerances

### Module 5. Sports Nutrition

- ◆ Review the basics of a balanced diet in the different stages of the life cycle, as well as in exercise
- ◆ Calculate child and adolescent athlete dietary needs and risks
- ◆ Assess and prescribe physical activity as a factor involved in nutritional status

### Module 6. Clinical Nutrition and Hospital Dietetics

- ◆ Update the drug-nutrient interaction and its implication in the patient's treatment
- ◆ Interpret and integrate anthropometric, clinical, biochemical, hematological, immunological and pharmacological data in the nutritional assessment of the patient and in their dietary-nutritional treatment

### Module 7. Nutrition in Digestive System Pathologies

- ◆ Describe the main malabsorption syndromes and how they are treated
- ◆ Study the interrelationship between diet and oral disease
- ◆ Identify nutritional factors involved in gastroesophageal reflux and ulcers
- ◆ Get up to date on the management of patients with swallowing problems
- ◆ Reflect on the etiology of constipation and its relationship to diet in adults

- ◆ Reflect on new techniques in digestive and intestinal surgery and their impact on patient nutrition
- ◆ Get up to date on small intestine management procedures
- ◆ Know the dietary treatment for biliary and pancreatic pathologies
- ◆ Explain the role of the intestinal microbiota and its implications in diseases

### **Module 8. Nutrition in Endocrine-Metabolic Diseases**

- ◆ Update knowledge on the treatment of dyslipidemias and the role that nutrition plays in their development and treatment
- ◆ Identify dietary factors related to bone metabolism
- ◆ Identify dietary factors involved in hyperuricemia
- ◆ Identify dietary and lifestyle factors involved in the genesis and treatment of osteoporosis

### **Module 9. Nutrition in Kidney Diseases**

- ◆ Understand the implications that nutrition can have in the treatment of liver diseases
- ◆ Get up to date on dietary management procedures for adults with chronic renal failure and on dialysis

### **Module 10. Nutrition in Neurological Diseases**

- ◆ Review the psychological bases and biopsychosocial factors that affect human eating behavior
- ◆ Get up to date on the procedures for dietary management of patients with disabling neuromuscular pathology and strokes
- ◆ Identify the nutritional support needs of patients with Parkinson's disease and Alzheimer's disease at each evolutionary stage

### **Module 11. Nutrition in Special Situations**

- ◆ Identify the relationship between nutrition and immune status
- ◆ Review current trends in premature infant nutrition
- ◆ Identify eating behavior disorders

- ◆ Manage the diet of critically ill patients
- ◆ Review the pathogenesis and update the treatment of inborn errors of metabolism
- ◆ Review the rationale for dietary support of acute diarrhea
- ◆ Update knowledge on food allergies and intolerances

### **Module 12. Nutrition in Deficiency Diseases**

- ◆ Acquire technical knowledge on the handling of systems and devices necessary for nutritional support in critically ill patients
- ◆ Learn and understand the nutritional treatment of the most common deficiency diseases in our environment
- ◆ Provide nutritional support to different oncology patients
- ◆ Update knowledge in the light of the current evolution of HIV patients on the nutritional support of the disease
- ◆ Update the management of nutritional support in inflammatory diseases
- ◆ Incorporate the nutritional treatment of the most prevalent deficiency diseases in adults
- ◆ Manage the type II diabetic diet and other lifestyle factors

### **Module 13. Artificial Nutrition in Adults**

- ◆ Gain up-to-date knowledge on the dietetic treatment of oral cavity pathologies in adults paying special attention to sensory disorders and mucositis
- ◆ Identify patients with nutritional risk or established malnutrition susceptible to specific support
- ◆ Evaluate and monitor the supervision of nutritional support
- ◆ Update knowledge of specific formulae for artificial nutrition in adults

### **Module 14. Physiology of Infant Nutrition**

- ◆ Apply Food Science and Nutrition to the practice of pediatric dietetics
- ◆ Update the different educational methods of application in health sciences, as well as communication techniques applicable to food and human nutrition with a special focus on children and adolescents

- ◆ Reflect on the usefulness of the school cafeteria as an educational vehicle
- ◆ Review the physiology of breastfeeding
- ◆ Review the dietary management of oral cavity pathologies in children
- ◆ Reflect on new trends and models in infant feeding
- ◆ Update knowledge on probiotics and prebiotics in infant feeding

### **Module 15. Artificial Nutrition in Pediatrics**

- ◆ Identify the repercussion that a pregnant and lactating mother's nutrition has on the intrauterine growth and evolution of new-borns and infants
- ◆ Reflect on the role of human milk as a functional food
- ◆ Analyze the operation of milk banks
- ◆ Incorporate the different techniques and products of basic and advanced nutritional support related to pediatric nutrition into clinical practice

### **Module 16. Infant Malnutrition**

- ◆ Reflect and identify risk factors in school and adolescent nutrition
- ◆ Review the pathophysiological aspects of pediatric diseases
- ◆ Identify children at nutritional risk who are eligible for specific support
- ◆ Evaluate and monitor the supervision of children on nutritional support
- ◆ Identify children suffering from malnutrition
- ◆ Describe the correct nutritional support for a malnourished child
- ◆ Classify the different types of malnutrition and their impact on the developing organism
- ◆ Update knowledge on the role that fats play in children's diets

### **Module 17. Childhood Nutrition and Pathologies**

- ◆ Update current trends in the nutrition of infants with delayed intrauterine growth and the implication of nutrition on metabolic diseases
- ◆ Review the relation between physiology and nutrition in the different stages of infant development
- ◆ Update knowledge on new formulae used in infant feeding
- ◆ Get up to date on managing children with gastroesophageal reflux
- ◆ Analyze the implications of nutrition in the growth process and in the prevention and treatment of different childhood pathologies
- ◆ Describe the nutritional requirements in the different periods of childhood
- ◆ Apply the knowledge acquired on nutritional assessment in Pediatrics
- ◆ Reflect on the etiology, repercussions, and treatment of childhood obesity
- ◆ Identify the appropriate nutritional therapy for pediatric patients with chronic pulmonary pathology
- ◆ Assess the psychological and physiological aspects involved in eating disorders in young children
- ◆ Manage diabetic children's diets
- ◆ Assess the nutritional support of children with cancer in different situations
- ◆ Reflect on the role of nutrition in autistic children
- ◆ Reflect on the relationship between constipation and infant nutrition
- ◆ Identify exclusion foods in the diets of children with celiac disease
- ◆ Update the dietary management of children with nephropathy

# 03 Skills

After passing the assessments in this program, the pharmacist will have acquired the professional skills necessary for quality clinical practice based on the latest scientific evidence.



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*With this program you will be able to master the management of clinical pharmaceutical nutrition”*



## General Skills

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- ◆ Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
- ◆ Know how to apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the area of study
- ◆ Integrate knowledge and face the complexity of making judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments
- ◆ Know how to communicate conclusions, knowledge, and supporting arguments to specialized and non-specialized audiences in a clear and unambiguous way
- ◆ Acquire the learning skills that will enable further studying in a largely self-directed or autonomous manner
- ◆ Develop within the profession in terms of working with other health professionals, acquiring skills to work as a team
- ◆ Recognize the need to maintain your professional skills and keep them up to date, with special emphasis on autonomous and continuous learning of new information
- ◆ Develop the capacity for critical analysis and research in your professional field







## Specific Skills

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- ◆ Describe balanced nutrition in the different stages of the life cycle as well as in exercise
- ◆ Contrast nutritional requirements in health and disease situations at any stage of the life cycle
- ◆ Determine nutritional objectives and recommended daily allowances (RDA)
- ◆ Develop skills in reading and understanding food labeling
- ◆ Design a dietary plan of phytotherapy as an adjuvant treatment
- ◆ Question the different methods of assessing nutritional status
- ◆ Interpret all data in the nutritional assessment of the patient
- ◆ Develop food hygiene practices based on current legislation
- ◆ Design dietary treatment for oral cavity pathologies in adults with special attention to sensory disorders and mucositis
- ◆ Indicate treatment for managing patients with swallowing problems
- ◆ Learn dietary guidelines for adults with chronic kidney failure and on dialysis
- ◆ Determine the role of the intestinal microbiota and its implications in pathologies
- ◆ Apply the different techniques and products of basic and advanced nutritional support related to patient nutrition
- ◆ Explore those patients with nutritional risk or malnutrition
- ◆ Observe and identify obesity, and determine its dietary or surgical treatment
- ◆ Describe the DASH diet and prescribe it as a treatment in cardiovascular disease
- ◆ Distinguish dietary management of patients with debilitating neuromuscular pathology and cerebrovascular accidents
- ◆ Analyze the importance of nutrition in childhood growth processes
- ◆ Question nutritional requirements at different stages of childhood
- ◆ Determine how to calculate the dietary needs and risks of child and adolescent athletes
- ◆ Describe current trends in neonatal nutrition
- ◆ Describe how milk banks work
- ◆ Screen children who are at nutritional risk for targeted support
- ◆ Design an assessment and monitoring plan for children with nutritional support
- ◆ Analyze the differences between probiotic and prebiotic foods and their application in the infant stage
- ◆ Develop correct nutritional support for malnourished children
- ◆ Describe the etiology, repercussions, and treatment of childhood obesity
- ◆ Address the psychological and physiological aspects involved in eating disorders in young children
- ◆ Determine how to manage diabetic children's diet correctly
- ◆ Analyze and determine the nutritional support of pediatric oncological patients in different phases of the disease



*Prepare yourself for success in the workplace by completing this Professional Master's Degree with a high academic level"*

04

# Course Management

Our teaching team, experts in Clinical Nutrition, are well known in the profession and are professionals with years of teaching experience who have come together to help you boost your career. To this end, they have developed this Professional Master's Degree with the latest developments in the field that will allow you to train and increase your skills in this sector.



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*Learn from the best professionals and become  
a successful professional yourself”*

## Management



### **Ms. Auni3n Lavar3as, Mar3a Eugenia**

- ◆ Pharmacist and Clinical Nutrition Expert
- ◆ "Author of the reference book in the field of Clinical Nutrition "Dietetic Management of Overweight in the Pharmacy Office". (Panamerican Medical Publishing House)
- ◆ Pharmacist with extensive experience in the public and private sector
- ◆ Pharmacist in Valencia Pharmacy
- ◆ Pharmacy Assistant in the British pharmacy and health and beauty retail chain Boots, UK
- ◆ Degree in Pharmacy and Food Science and Technology. University of Valencia
- ◆ Director of the University Course "Dermocosmetics in the Pharmacy Office"



05

# Structure and Content

The structure of the curriculum has been designed by a team of professionals knowledgeable about the implications of the program in nutrition based on clinical practice, aware of the relevance of the qualification and committed to quality teaching through new educational technologies.





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*This Professional Master's Degree in Clinical Nutrition Counseling in the Community Pharmacy, contains the most complete and up-to-date scientific program on the market”*

## Module 1. New Developments in Food

- 1.1. Molecular Foundations of Nutrition
- 1.2. Update on Food Composition
- 1.3. Food Composition Tables and Nutritional Databases
- 1.4. Phytochemicals and Non-Nutritive Compounds
- 1.5. New Food
  - 1.5.1. Functional Nutrients and Bioactive Compounds
  - 1.5.2. Probiotics, Prebiotics, and Synbiotics
  - 1.5.3. Quality and Design
- 1.6. Organic Food
- 1.7. Transgenic Foods
- 1.8. Water as a Nutrient
- 1.9. Food Safety
  - 1.9.1. Physical, Chemical, and Microbiological Hazards
- 1.10. New Labelling and Consumer Information
- 1.11. Phytotherapy Applied to Nutritional Pathologies

## Module 2. Current Trends in Nutrition

- 2.1. Nutrigenetics
- 2.2. Nutrigenomics
  - 2.2.1. Fundamentals
  - 2.2.2. Methods
- 2.3. Immunonutrition
  - 2.3.1. Nutrition-Immunity Interactions
  - 2.3.2. Antioxidants and Immune Function
- 2.4. Physiological Regulation of Feeding. Appetite and Satiety
- 2.5. Nutrition and the Circadian System. Timing is the Key





**Module 3. Assessment of Nutritional Status and Diet Practical Application**

- 3.1. Bioenergy and Nutrition
  - 3.1.1. Energy Needs
  - 3.1.2. Methods of Assessing Energy Expenditure
- 3.2. Assessment of Nutritional Status
  - 3.2.1. Body Composition Analysis
  - 3.2.2. Clinical Diagnosis. Symptoms and Signs
  - 3.2.3. Biochemical, Hematological and Immunological Methods
- 3.3. Intake Assessment
  - 3.3.1. Methods for Analyzing Food and Nutrient Intake
  - 3.3.2. Direct and Indirect Methods
- 3.4. Update on Nutritional Requirements and Recommended Intakes
- 3.5. Nutrition in a Healthy Adult Objectives and Guidelines The Mediterranean diet
- 3.6. Nutrition in Menopause
- 3.7. Nutrition in the Elderly

**Module 4. Nutritional Consultation**

- 4.1. How to Carry Out a Nutritional Consultation?
  - 4.1.1. Analysis of the Market and Competition
  - 4.1.2. Clientele
  - 4.1.3. Marketing Social Networks
- 4.2. Psychology and Nutrition
  - 4.2.1. Psychosocial Factors Affecting Eating Behavior
  - 4.2.2. Interview Techniques
  - 4.2.3. Dietary Advice
  - 4.2.4. Stress Control
  - 4.2.5. Child and Adult Nutrition Education

## Module 5. Sports Nutrition

- 5.1. Physiology of Exercise
- 5.2. Physiological Adaptation to Different Types of Exercise
- 5.3. Metabolic Adaptation to Exercise. Regulation and Control
- 5.4. Assessing Athletes' Energy Needs and Nutritional Status
- 5.5. Assessing Athletes' Physical Ability
- 5.6. Nutrition in the Different Phases of Sports Practice
  - 5.6.1. Pre-Competition
  - 5.6.2. During
  - 5.6.3. After the Competition
- 5.7. Hydration
  - 5.7.1. Regulation and Needs
  - 5.7.2. Types of Beverages
- 5.8. Dietary Planning Adapted to Different Sports
- 5.9. Ergogenic Aids and Current Anti-Doping Regulations
  - 5.9.1. AMA and AEPSAD Recommendations
- 5.10. Nutrition in Sports Injury Recovery
- 5.11. Psychological Disorders Related to Practising Sport
  - 5.11.1. Eating Disorders: Bigorexia, Orthorexia, Anorexia
  - 5.11.2. Fatigue Caused by Overtraining
  - 5.11.3. The Female Athlete Triad
- 5.12. The Role of the *Coach* in Sports Performance

## Module 6. Clinical Nutrition and Hospital Dietetics

- 6.1. Management of Hospital Nutrition Units
  - 6.1.1. Nutrition in the Hospital Setting
  - 6.1.2. Food Safety in Hospitals
  - 6.1.3. Hospital Kitchen Organization
  - 6.1.4. Planning and Managing Hospital Diets. Dietary Code
- 6.2. Hospital Basal Diets
  - 6.2.1. Basal Diet in Adults
  - 6.2.2. Pediatric Basal Diet
  - 6.2.3. Ovo-Lacto-Vegetarian and Vegan Diet
  - 6.2.4. Diet Adapted to Cultural

- 6.3. Therapeutic Hospital Diets
  - 6.3.1. Unification of Diets and Personalized Menus
- 6.4. Bidirectional Drug-Nutrient Interaction

## Module 7. Nutrition in Digestive System Pathologies

- 7.1. Nutrition in Oral Disorders
  - 7.1.1. Taste
  - 7.1.2. Salivation
  - 7.1.3. Mucositis
- 7.2. Nutrition in Esophageal and Gastric Disorders
  - 7.2.1. Gastroesophageal Reflux
  - 7.2.2. Gastric Ulcers
  - 7.2.3. Dysphagia
- 7.3. Nutrition in Post-Surgical Syndromes
  - 7.3.1. Gastric Surgery
  - 7.3.2. Small Intestine
- 7.4. Nutrition in Bowel Function Disorders
  - 7.4.1. Constipation
  - 7.4.2. Diarrhea
- 7.5. Nutrition in Malabsorption Syndromes
- 7.6. Nutrition in Colonic Pathology
  - 7.6.1. Irritable Bowel
  - 7.6.2. Diverticulosis
- 7.7. Nutrition in Inflammatory Bowel Disease (IBD)
- 7.8. Most Frequent Food Allergies and Intolerances with Gastrointestinal Effects
- 7.9. Nutrition in Liver Diseases
  - 7.9.1. Portal Hypertension
  - 7.9.2. Hepatic Encephalopathy
  - 7.9.3. Liver Transplant
- 7.10. Nutrition in Biliary Diseases. Biliary Lithiasis
- 7.11. Nutrition in Pancreatic Diseases
  - 7.11.1. Acute Pancreatitis
  - 7.11.2. Chronic Pancreatitis

## Module 8. Nutrition in Endocrine-Metabolic Diseases

- 8.1. Dyslipidemia and Arteriosclerosis
- 8.2. Diabetes Mellitus
- 8.3. Hypertension and Cardiovascular Disease
- 8.4. Obesity
  - 8.4.1. Etiology. Nutrigenetics and Nutrigenomics
  - 8.4.2. Pathophysiology of Obesity
  - 8.4.3. Diagnosis of the Disease and its Comorbidities
  - 8.4.4. Multidisciplinary Team in Obesity Treatment
  - 8.4.5. Dietary Treatment. Therapeutic Possibilities
  - 8.4.6. Pharmacological Treatment. New Drugs
  - 8.4.7. Psychological Treatment
    - 8.4.7.1. Intervention Models
    - 8.4.7.2. Treatment of Associated Eating Disorders
  - 8.4.8. Surgical Treatments
    - 8.4.8.1. Indications
    - 8.4.8.2. Techniques
    - 8.4.8.3. Complications
    - 8.4.8.4. Dietary Management
    - 8.4.8.5. Metabolic Surgery
  - 8.4.9. Endoscopic Treatments
    - 8.4.9.1. Indications
    - 8.4.9.2. Techniques
    - 8.4.9.3. Complications
    - 8.4.9.4. Patient Dietary Management
  - 8.4.10. Physical Activity in Obesity
    - 8.4.10.1. Assessment of the Patient's Functional Capacity and Activity
    - 8.4.10.2. Activity-based Prevention Strategies
    - 8.4.10.3. Intervention in the Treatment of the Disease and Associated Pathologies
  - 8.4.11. Update on Diet and Obesity Studies
  - 8.4.12. National and International Intervention Strategies for Obesity Control and Prevention

## Module 9. Nutrition in Kidney Diseases

- 9.1. Glomerular Disorders and Tubulopathies
- 9.2. Predialysis Chronic Renal Failure
- 9.3. Chronic Renal Failure and Dialysis
- 9.4. Gout and Hyperuricemia

## Module 10. Nutrition in Neurological Diseases

- 10.1. Swallowing Disorders
- 10.2. Disabling Neuromuscular Disorders
- 10.3. Stroke
- 10.4. Parkinson's Disease
- 10.5. Alzheimer's Disease

## Module 11. Nutrition in Special Situations

- 11.1. Nutrition in Metabolic Stress Situations
  - 11.1.1. Sepsis
  - 11.1.2. Polytrauma
  - 11.1.3. Burns
  - 11.1.4. Transplant Recipient
- 11.2. Nutrition in Oncology Patients with
  - 11.2.1. Surgical Management
  - 11.2.2. Chemotherapy Treatment
  - 11.2.3. Radiotherapy Treatment
  - 11.2.4. Bone Marrow Transplant
- 11.3. Immune Diseases
  - 11.3.1. Acquired Immunodeficiency Syndrome(AIDS)

## Module 12. Nutrition in Deficiency Diseases

- 12.1. Malnutrition
  - 12.1.1. Hospital Malnutrition
  - 12.1.2. The Fasting and Refeeding Cycle
- 12.2. Anaemia. Hemochromatosis
- 12.3. Vitamin Deficiencies
- 12.4. Osteoporosis
- 12.5. Oral Disease and its Relation to Diet

## Module 13. Artificial Nutrition in Adults

- 13.1. Enteral Nutrition
- 13.2. Parenteral Nutrition
- 13.3. Artificial nutrition at home
- 13.4. Adapted Oral Nutrition

## Module 14. Physiology of Infant Nutrition

- 14.1. Influence of Nutrition on Growth and Development
- 14.2. Nutritional Requirements in the Different Periods of Childhood
- 14.3. Nutritional Assessment in Children
- 14.4. Physical Activity Evaluation and Recommendations
- 14.5. Nutrition During Pregnancy and its Impact on the New-born
- 14.6. Current Trends in the Premature New-born Nutrition
- 14.7. Nutrition in Lactating Women and its Impact on the Infant
- 14.8. Nutrition of Newborns with Intrauterine Growth Delay. Implications on Metabolic Diseases
- 14.9. Breastfeeding
  - 14.9.1. Human Milk as a Functional Food
  - 14.9.2. Process of Milk Synthesis and Secretion
  - 14.9.3. Reasons for it to be Encouraged
- 14.10. Human Milk Banks
  - 14.10.1. Milk Bank Operation and Indications
- 14.11. Concept and Characteristics of the Formulae Used in Infant Feeding
- 14.12. The Move to a Diversified Diet. Complementary Feeding During the First Year of Life
- 14.13. Feeding 1–3-Year-Old Children
- 14.14. Feeding During the Stable Growth Phase. Schoolchild Nutrition

- 14.15. Adolescent Nutrition. Nutritional Risk Factors
- 14.16. Child and Adolescent Athlete Nutrition
- 14.17. Other Dietary Patterns for Children and Adolescents. Cultural, Social, and Religious Influences on Childhood Nutrition
- 14.18. Prevention of Childhood Nutritional Diseases. Objectives and Guidelines

## Module 15. Artificial Nutrition in Pediatrics

- 15.1. Concept of Nutritional Therapy
  - 15.1.1. Evaluation of Patients in Need of Nutritional Support
  - 15.1.2. Indications
- 15.2. General Information about Enteral and Parenteral Nutrition
- 15.3. Dietary Products Used for Sick Children or Children with Special Needs
- 15.4. Implementing and Monitoring Patients with Nutritional Support
  - 15.4.1. Critical Patients
  - 15.4.2. Patients with Neurological Pathologies
- 15.5. Artificial nutrition at home
- 15.6. Nutritional Supplements to Support the Conventional Diet
- 15.7. Probiotics and prebiotics in infant feeding

## Module 16. Infant Malnutrition

- 16.1. Infant Malnutrition
  - 16.1.1. Psychosocial Aspects
- 16.2. Undernourishment
  - 16.2.1. Clinical Classification
  - 16.2.2. Repercussions of a Developing Organism
- 16.3. Iron Deficiency
  - 16.3.1. Other Nutritional Anemias in Childhood
  - 16.3.2. Vitamin and Trace Element Deficiencies
  - 16.3.3. Fats in Infant Diets
    - 16.3.3.1. Essential Fatty Acids
- 16.4. Childhood Obesity
  - 16.4.1. Prevention
  - 16.4.2. Impact of Childhood Obesity
  - 16.4.3. Nutritional Treatment

## Module 17. Childhood Nutrition and Pathologies

- 17.1. Feeding Difficulties and Disorders in Children Small
  - 17.1.1. Physiological Aspects
  - 17.1.2. Psychological Aspects
- 17.2. Eating Disorders
  - 17.2.1. Anorexia
  - 17.2.2. Bulimia
  - 17.2.3. Others
- 17.3. Inborn Errors of Metabolism
  - 17.3.1. Principles for Dietary Treatment
- 17.4. Nutrition in Dyslipidemias
- 17.5. Nutrition in Diabetic Children
- 17.6. Nutrition in Autistic Children
- 17.7. Nutrition in Children with Cancer
- 17.8. Nutrition of Children with Oral Pathologies
- 17.9. Nutrition of Infants and Children with Gastroesophageal Reflux
- 17.10. Nutrition in Acute Diarrhea Situation
- 17.11. Nutrition in Children with Celiac Disease
- 17.12. Nutrition in Children with Inflammatory Bowel Disease
- 17.13. Nutrition in Children with Digestive Malabsorption Syndrome
- 17.14. Nutrition in Children with Constipation
- 17.15. Nutrition in Children with Liver Disease
- 17.16. Nutrition in Children with Chronic Pulmonary Pathology
- 17.17. Nutrition in Children with Nephropathy
- 17.18. Nutrition in Children with Food Allergies and/or Intolerances
- 17.19. Childhood and Bone Pathology Nutrition



*A unique, key, and decisive program to boost your professional development”*

06

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will be confronted with multiple simulated clinical cases based on real patients, in which they will have to investigate, establish hypotheses and ultimately, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Pharmacists learn better, more quickly and more sustainably over time.

*With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.*



According to Dr. Gervas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, attempting to recreate the actual conditions in a pharmacist's professional practice.



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*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

The effectiveness of the method is justified by four fundamental achievements:

1. Pharmacists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

Our University is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.

*Pharmacists will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 115,000 pharmacists have been trained with unprecedented success in all clinical specialties, regardless of the surgical load. This pedagogical methodology is developed in a highly demanding environment, with a university student body with a high socioeconomic profile and an average age of 43.5 years.

*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



### Study Material

All teaching material is created specifically for the course by specialist pharmacists who will be teaching the course, so that the didactic development is highly specific and accurate.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



### Video Techniques and Procedures

TECH introduces students to the latest techniques, to the latest educational advances, to the forefront of current pharmaceutical care procedures. All of this, first hand, and explained and detailed with precision to contribute to assimilation and a better understanding. And best of all, you can watch them as many times as you want.



### Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



### Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



07

# Certificate

The Professional Master's Degree in Clinical Nutrition Counseling in the Community Pharmacy guarantees you, in addition to the most rigorous and up-to-date training, access to a Professional Master's Degree issued by TECH Global University.





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*Successfully complete this program  
and receive your university degree  
without travel or laborious paperwork”*

This private qualification will allow you to obtain a **Professional Master's Degree diploma in Clinical Nutrition Counseling in the Community Pharmacy** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Professional Master's Degree in Clinical Nutrition Counseling in the Community Pharmacy**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning



**Professional Master's Degree**  
Clinical Nutrition Counseling  
in the Community Pharmacy

- › Modality: online
- › Duration: 12 months
- › Certificate: TECH Global University
- › Credits: 60 ECTS
- › Schedule: at your own pace
- › Exams: online

**Professional Master's Degree**  
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